

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 107)

FOIL the expressions shown below:

1. $(9x + 4)(9x - 8)$

$$\begin{aligned} & (9)(9)x^2 + (9)(-8)x + (4)(9)x + (4)(-8) \\ & (81)x^2 + (-72)x + (36)x + (-32) \\ & 81x^2 - 36x - 32 \end{aligned}$$

2. $(6x - 7)(-4x - 7)$

$$\begin{aligned} & (6)(-4)x^2 + (6)(-7)x + (-7)(-4)x + (-7)(-7) \\ & (-24)x^2 + (-42)x + (28)x + (49) \\ & -24x^2 - 14x + 49 \end{aligned}$$

3. $(5x - 7)(4x - 7)$

$$\begin{aligned} & (5)(4)x^2 + (5)(-7)x + (-7)(4)x + (-7)(-7) \\ & (20)x^2 + (-35)x + (-28)x + (49) \\ & 20x^2 - 63x + 49 \end{aligned}$$

4. $(-4x - 8)(8x - 9)$

$$\begin{aligned} & (-4)(8)x^2 + (-4)(-9)x + (-8)(8)x + (-8)(-9) \\ & (-32)x^2 + (36)x + (-64)x + (72) \\ & -32x^2 - 28x + 72 \end{aligned}$$

5. $(3x - 8)(6x - 4)$

$$\begin{aligned} & (3)(6)x^2 + (3)(-4)x + (-8)(6)x + (-8)(-4) \\ & (18)x^2 + (-12)x + (-48)x + (32) \\ & 18x^2 - 60x + 32 \end{aligned}$$

FOIL the expressions shown below:

6. $(4x - 9)(8x + 9)$

$$\begin{aligned}(4)(8)x^2 + (4)(9)x + (-9)(8)x + (-9)(9) \\ (32)x^2 + (36)x + (-72)x + (-81) \\ 32x^2 - 36x - 81\end{aligned}$$

7. $(4x + 5)(-5x - 9)$

$$\begin{aligned}(4)(-5)x^2 + (4)(-9)x + (5)(-5)x + (5)(-9) \\ (-20)x^2 + (-36)x + (-25)x + (-45) \\ -20x^2 - 61x - 45\end{aligned}$$

8. $(8x - 3)(2x + 6)$

$$\begin{aligned}(8)(2)x^2 + (8)(6)x + (-3)(2)x + (-3)(6) \\ (16)x^2 + (48)x + (-6)x + (-18) \\ 16x^2 + 42x - 18\end{aligned}$$

9. $(-5x + 5)(6x + 8)$

$$\begin{aligned}(-5)(6)x^2 + (-5)(8)x + (5)(6)x + (5)(8) \\ (-30)x^2 + (-40)x + (30)x + (40) \\ -30x^2 - 10x + 40\end{aligned}$$

10. $(-7x - 4)(-5x + 2)$

$$\begin{aligned}(-7)(-5)x^2 + (-7)(2)x + (-4)(-5)x + (-4)(2) \\ (35)x^2 + (-14)x + (20)x + (-8) \\ 35x^2 + 6x - 8\end{aligned}$$